

Oral Presentation Session 02: Basic Science - Acupuncture

OS02.03

Electro-acupuncture treatment improves learning-memory ability and brain glucose metabolism in a mouse model of Alzheimer's disease: from MWM and m-PET

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Purpose: Alzheimer's disease (AD) causes progressive hippocampus dysfunctions leading to the impairment of learning and memory ability and low level of uptake rate of glucose in hippocampus. What's more, there is no effective treatment for AD. In this study, we evaluated the beneficial and protective effects of electro-acupuncture in senescence-accelerated mouse prone 8 (SAMP8).

Methods: We used the Morris water maze (Mwm) and micro-PET tests to evaluate the effect of electro-acupuncture on animal model of AD. In the electro-acupuncture paradigm, electro-acupuncture treatment was performed once a day for 15 days on 7.5-month-old SAMP8 male mice. The prescription of acupuncture points included DU20 Baihui, DU 26 Shuigou and EX-HN3 Yintang (the significant extra point). The locations of these points referred to the National Acupuncture Society for Experimental Research developed the "laboratory animal acupuncture atlas". In the normal control paradigm and AD control group, 7.5-month-old SAMR1 male mice and SAMP8 male mice were grabbed and bandaged while electro-acupuncture group therapy, in order to ensure the same treatment conditions, once a day, 15 days.

Results: From the Morris water maze (MWM) test, we found the treatment of electro-acupuncture can improve the spatial learning and memory ability of SAMP8 mouse; and from the micro-PET test, we proved that after the electro-acupuncture treatment the level of uptake rate of glucose in hippocampus was higher than normal control group.

Conclusion: These results suggest that the treatment of electro-acupuncture may provide a viable treatment option for AD.

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OS02.04

Effect of acupuncture in the treatment of seasonal allergic rhinitis: results from a randomised controlled trial

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Purpose: Seasonal allergic rhinitis (SAR) is a common condition with relatively high prevalence in Australia. The efficacy and safety of acupuncture for the management of allergic rhinitis has been investigated by a number of clinical studies but the efficacy is uncertain based on the latest findings of a

meta-analysis. Due to the fact that the airborne grass pollen is the predominant cause of SAR in Melbourne region. SAR sufferers' symptoms would spontaneously resolve after the two months pollen season during late spring and early summer of each year. Thus it is necessary to conduct a clinical trial with a short period of treatment to reflect the real effect of acupuncture on SAR in Melbourne region.

Methods: This is a randomised, subject and assessor-blinded, sham controlled trial, with 12 sessions of acupuncture treatment over four weeks. Patients diagnosed as SAR and confirmed allergic to rye grass pollen were randomly allocated to receive real acupuncture (RA) or sham acupuncture (SA) treatments. SAR symptoms' severity was the primary outcome measure.

Results: A total of 175 participants were randomised into either RA (n=88) or SA group (n=87) after the two-week run-in period. During the four-week treatment period, 18 participants in RA group and 6 in SA group discontinued due to time restriction; during the follow-up period, three participants in SA group lost contact. As a result, 151 participants completed the treatment and 148 participants completed follow-up assessment. After 4 weeks' treatment, RA was found significantly better than SA for reducing SAR symptom severity particularly sneezing and itchiness of ears and palate at the end of treatment, and improving participants' Quality of life at the end of both treatment and follow-up phases.

Conclusion: Four weeks' acupuncture treatment is a safe and effective option as clinical management of SAR, in terms of patients' symptom relief and QoL improvement.

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OS02.05

Compare the different electro-acupuncture on inflammatory response signals in cerebral ischemiareperfusion rats

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Purpose: To observe the dynamic change of stress-damage-repair signal chain in the damaged brain tissue of affected side after acupuncture intervention on cerebral ischemia and reperfusion model rats, compare the influence of acupuncture treatment to inflammatory response signals in the brain tissue.

Methods: The rats were randomly divided into the control group (10 animals) and model group, model rats were divided into 3 groups according to the random number table, include model control group, acupuncture treatment group 1 (DU20, EX-HN3 and DU26) and acupuncture treatment group 2 (DU20, affected side ST36), in each group, they were divided into 6 schedules (12 h, 24 h, 48 h, 72 h, 96 h and 144 h) and 10 animals of each schedule. Take brain tissue, frozen sections, used